

Serial No.: 09/676,875
Reply to Office Action of: May 6, 2003
Atty. Docket No.: ECB-0004

REMARKS

The Examiner will note that claim 1 has been amended as to the scope of the catalyst and stripping gas. Support for the stripping gas amendment may be found in the specification at page 5, lines 19-20.

Claim 1-4, 7, 9-11 and 13 were rejected as being unpatentable over Hatanaka et al. (U.S. 5,906,730) in view of Harandi (U.S. 5,554,275). For the reasons noted below and in view of the amended claim, this rejection is not well taken and should be withdrawn.

As the Examiner is aware, applicants' invention has two alternatives with regard to stripping gas and catalyst: (1) stripping gas is hydrogen and catalyst is a non-reducible metal oxide, and (2) stripping gas is an inert gas and catalyst is a Group VIII metal promoted by Group VIB metal.

The catalyst of Hatanaka contains a metal active for desulfurization on a porous inorganic oxide carrier. The metals include Cr, Mo, W, Co and Ni (col. 5, lines 15-31). The catalysts of Harandi are similar to those of Hatanaka, i.e., Co, Mo, Ni, etc., on an inert substrate such as alumina (col. 1, lines 47-51). The stripping gas contains hydrogen (col. 1, lines 37-38).

In alternative (1) of amended claim 1, when the stripping gas contains hydrogen, the catalyst consists essentially of a non-reducible metal oxide. Thus the amended claim in this alternative does not read on the active catalytic metals taught by Hatanaka or Harandi.

With regard to alternative (2) noted above, both Hatanaka and Harandi require the presence of hydrogen. In contrast, in applicants' amended claim 1, the stripping gas consists essentially of a non-hydrotreating vent gas when the catalysts contain a Group VIII/VIB metal. Thus the stripping gas in said alternative (2) does not read on hydrogen.

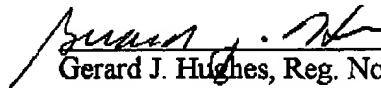
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The Examiner's attention is directed to applicants' Example 1. When γ -alumina is used with hydrogen, conversion is 56% with no saturation of olefins. γ -alumina with nitrogen stripping gas results in rapid catalyst deactivation and almost no conversion. The CoMoS catalyst with hydrogen removes almost all the sulfur but results in undesirable saturation of olefins. But when CoMoS is used with nitrogen as stripping gas, there is a 95% conversion of mercaptan sulfur, no undesirable olefin saturation, and no catalyst deactivation.

For the reasons noted above and in view of the amended claims, it is urged that the rejection over Hatanaka in view of Harandi has been overcome and the case is now in condition to be allowed. Favorable action is solicited. The Examiner is encouraged to contact applicants' attorney should the Examiner wish to discuss this application further.

Respectfully submitted:

Date: 27 June 2003


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Michael A. Nametz
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ExxonMobil

March 19, 2003

Honorable Commissioner
Patent and Trademark Office
U.S. Department of Commerce
Washington, D.C. 20231

Sir:

This letter is written to notify you that ExxonMobil Research and Engineering Company (EMRE) has delegated certain signatory authority in connection with patent prosecution before the United States Patent and Trademark Office. Enclosed herewith is a true original copy of a letter dated March 19, 2003, formally making the delegations.

It is requested that the attached authorization be filed in the Patent and Trademark Office for reference in verifying the delegation of this authority to the designated individuals. It supersedes a similar authorization dated August 20, 2002, filed in your office.

Very truly yours,



MAN:dws
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Attachment

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ExxonMobil
*Research and
Engineering*

March 19, 2003

Honorable Commissioner of
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U.S. Patent and Trademark Office
U.S. Department of Commerce
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27810

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March 19, 2003

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EXXONMOBIL RESEARCH AND ENGINEERING COMPANY

By 
M. A. Nametz, Secretary

Date March 20, 2003

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By 
J. R. Nacheman, Assistant Secretary

Date March 21, 2003

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